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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,714	07/23/2003	Philip L. Atwater	411677	8119
30955	7590	02/08/2007	EXAMINER	
LATHROP & GAGE LC 4845 PEARL EAST CIRCLE SUITE 300 BOULDER, CO 80301			PAN, YUWEN	
			ART UNIT	PAPER NUMBER
			2618	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	02/08/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/625,714	ATWATER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Yuwen Pan	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 16 November 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-22 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-22 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____.   | 6) <input type="checkbox"/> Other: _____ .                        |

***Response to Arguments***

1. Applicant's arguments filed on 11/13/06 have been fully considered but they are not persuasive.
2. The applicant argues that the publication date of prior art of record, Jacobs et al (Tunnel Communication Test Result) is May 20, 2003 according to the applicant's Declaration under 37 CFR 1.132, instead of September, 1998 in which appears on the cover sheet of Tunnel Communication Test Result (hereinafter, TCTR). The examiner respectfully disagrees because the affidavit under 37 CFR 1.132 filed on 11/13/06 is insufficient to overcome the rejection of claims 1-22 based upon 35 USC 102(b) rejections as set forth in the last Office action because: the examiner found the newly submitted evidence is not persuasive based on MPEP 716.01(d), states:

...If, after evaluating the evidence, the examiner is still not convinced that the claimed invention is patentable, the next office action should include a statement to that effect and identify the reason(s)...

Based on an update search, the examiner finds new evidences in which cause discrepancies in view of applicant's declaration.

First, According to Internet Archive Wayback Machine, the electronic publication date of TCTR is April 27, 2003 in which is inconsistent with application's declaration; “[t]he document is question was written in 1998 and remained internal to the research group within the Department of the Interior, Bureau of Reclamation until May 30, 2003. ”

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Second, according to PTO Electronic Information Center (EIC) search, they find the project notes TCTR has been listed in Worldcat ([www.worldcat.org](http://www.worldcat.org)), in which is the worlds' largest network of library content and services. It shows that the projects note TCTR has been listed on this public library service since September 1998.

Third, by further looking in the detail content of the project notes TCTR, it encloses "Peer Review Documentation" shows that this project notes was transmitted to client on October 16, 1998. It raises another issue who the client is going to be. Please provide corresponding evidence if the client is within the Department of Interior, as this transmission date provides *prima facie* support for an external publication data of 1998.

Last, the examiner finds another document, In-Building/In-Tunnel User Consideration in which is dated as August 2002. It contains information of TCTR, in Appendix C-Technical references, such as the date of TCTR, Project Notes 8450-98-06, and corresponding website link. This citation provides *prima facie* support for an external publication data of TCTR at some point prior to its own 2002 publication date.

Based on foregoing reasoning, the objective evidence of anticipation outweighs that submitted by the applicant and therefore the previous rejection stands.

Applicant should be aware that because TCTR is "by another", a publication date prior to the effective filing date of the present application may have relevance under 35 USC 102(a).

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Jacobs et al (tunnel communication test result, published in 1998).

Per claim 1 and 12, Jacobs discloses a microwave transmission system for use in communicating in confined spaces, such as mines, tunnels, industrial enclosures, buildings and the like, comprising: an enclosure selected from the group consisting of a mine, a tunnel, an industrial enclosure, and a building; and a pair of transceivers configured to transmit and receive signals through the enclosure at frequencies ranging from 5 GHz to 15 GHz (see page 20).

Per claim 2 and 13, Jacobs further teaches the frequencies range from 8 GHz to 12 GHz (see page 20).

Per claim 3 and 14, Jacobs further teaches the frequencies range between 10 GHz plus or minus three percent (see page 20).

Per claim 4 and 15, Jacobs further teaches pair of transceivers are configured for duplex transmission of communications signals (see page 24).

Per claim 5 and 16, Jacobs further teaches the pair of transceivers each include circuitry for transmitting call signals and circuitry for detecting the call signals, where the call signals indicate a request for a call signal recipient to man one of the transceivers (see page 24).

Per claim 6 and 17, Jacobs further teaches the circuitry for detecting call signals further includes circuitry for confirming that the call signals have been detected at a power output that is generally regarded as a safe level of RF exposure to workers (abstract).

Per claim 7 and 18, Jacobs further teaches each transceiver in the pair of transceivers is configured to operate at a power output of about 35 miliwatts or less (see page 4).

Per claim 8 and 19, Jacobs further teaches circuitry for detecting loss of signal lock (see page 24).

Per claim 9 and 20, Jacobs further teaches the circuitry for detecting loss of signal lock comprises means for detecting loss of signal lock on the basis of signal strength (see page 3 and 4).

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Per claim 10 and 21, Jacobs further teaches the circuitry for detecting loss of signal lock comprises means for detecting loss of signal lock on the basis of center tuning (see page 4).

Per claim 11 and 22, Jacobs further teaches the pair of transceivers are configured to operate from power supplied by a 12 volt automotive battery (see page 24).

*Conclusion*

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuwen Pan whose telephone number is 571-272-7855. The examiner can normally be reached on 8-5 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anderson D. Matthew can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Yuwei Pan  
February 3, 2007

  
MATTHEW ANDERSON  
SUPERVISORY PATENT EXAMINER